BRITISH COLUMBIA

Information for Health

A Strategic Plan for Health Information Management in British Columbia 2002/03 – 2006/07

PRESENTED BY THE HEALTH CHIEF INFORMATION OFFICER COUNCIL

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Introduction

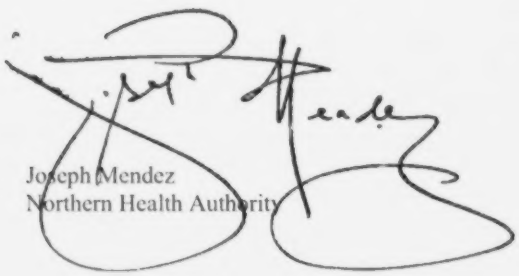
This document is a strategic plan for health information management in British Columbia, a provincial compass to guide the activities of the six health authorities and the Ministries of Health Planning and Health Services. Its purpose is to define how health information management can help achieve the health system's goals and objectives for the next five years. A modern health system needs accurate and instantly accessible information. It is vital for improving care for patients, improving the performance of the health care system and the health of British Columbians.

This plan is informed by the service plans of the Ministries of Health Planning and Health Services, each health authority's redesign plans, the Premier's Technology Council First and Second Quarterly Reports, the Advisory Committee on Health Infostructure's Tactical Plan for a pan-Canadian Health Infostructure and the Select Standing Committee Report on Health.

The plan begins by summarizing the British Columbia context for health information management. It outlines a vision for health information management and identifies ten guiding principles. Six goals, or major tasks, are noted, as are strategic activities to achieve each goal.

The Health Chief Information Officers Council, composed of the Chief Information Officer (CIO) of the Ministries of Health Planning and Health Services and the CIOs of the six health authorities, developed the plan and are responsible for its implementation. In preparing the plan, the Council believes it is vital that consultations be held with health practitioners, administrators, governors, unions and information systems professionals. Their advice is important in making sure that the plan supports their day-to-day work.

The Information Management Plans of the health authorities, professional colleges, tertiary agencies, and the Ministries of Health Services and Health Planning will be aligned to this plan. Detailed action, or tactical plans, will be developed by the Health CIO Council to guide the implementation of this strategic plan. The plan is presented by the Health CIO Council for review and consideration.



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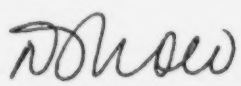

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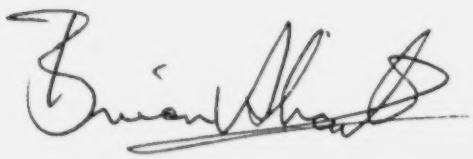

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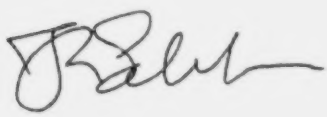

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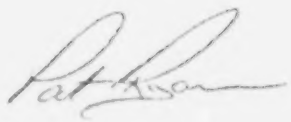

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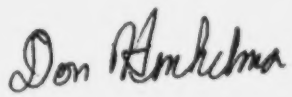


Don Henkelman
Provincial Health Services Authority

Information for Health

(Plan at a Glance)

Vision

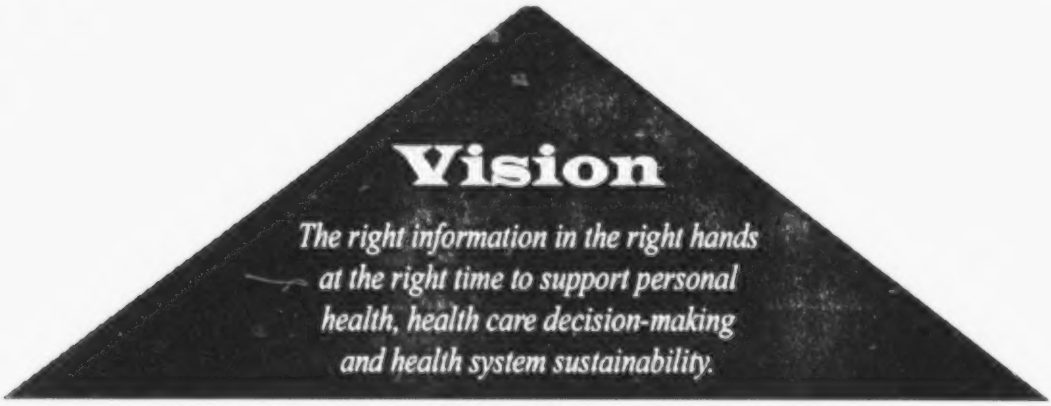
The right information in the right hands at the right time to support personal health, health care decision-making and health system sustainability.

Goals

Sharing of Caregiver Information	Public Access to Health Information	Provision of Aggregate Health Information	Leveraging of Technology	Efficient Use Of Public Resources	Enhanced Knowledge Management
Electronic Health Record	Coordinate Current Efforts	Use Standards to Improve the Quality and Consistency of Health Information	Expand Telehealth	Support Common Solutions	Promote Best Practices
Electronic Access for Caregivers to Patient Health Information	Increase Access	Develop Common Strategies for Sharing Information	Encourage Multiple Uses for High-Speed Networks	Expand Networks	Encourage Professional Development
Align and Standardize Existing Electronic Patient Records		Expand Existing Health Data Warehouse		Support Pan Canadian and System Wide Alliances	
Replace Legacy Systems With an Electronic Health System					
Provide Basic Infrastructure					

Information for Health

(Plan at a Glance)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Align and Standardize Existing Electronic Patient Records		Expand Existing Health Data Warehouse		Support Pan Canadian and System Wide Alliances	
Replace Legacy Systems With an Electronic Health System					
Provide Basic Infrastructure					

Context

Canada's provincial health systems are under significant pressure in the face of rising costs and rapid change. In British Columbia for the two-year period beginning in April 2003, the health care budget will receive no additional money. The increasing health care needs of an ageing population, expensive new health care technologies, new regional structures, a shift toward community based care, the need for improved accountability, efficiency, equity, access, and quality, as well as the desire of British Columbians to be more directly involved in decisions about their health care all represent significant challenges.

Health information plays a key role in determining how these challenges are met. Advancements in technology and the increasing value of integrated health data, as well as the management of that data, are of vital importance. It is about improving the very nature of care itself through enhanced knowledge and understanding by means of supportive information systems.

In these days of limited money, people and resources, this plan is also about providing decision-makers with accurate information so that they can make informed decisions. Most important, it is about increasing value for all users of the health care system: people seeing their family physician with a bad case of the flu, people with severe and persistent mental illness, healthy clients of the public health programs, permanent residents of nursing homes and acutely ill patients in clinics and hospitals. In the final analysis, the test of this plan is how well it supports the delivery of health care services to individual British Columbians wherever they receive services.

Vision

The vision for health information management in British Columbia is...

The right information in the right hands at the right time to support personal health, health care decision-making and health system sustainability.

When this vision is achieved:

In a community based hospital in rural British Columbia paramedics arrive with a victim. Injuries sustained in a snowmobile accident 30 minutes before reveal major trauma to the lower limbs, pelvis and neck areas. X-rays showed a questionable deformity in one part of the cervical spine of the victim. The patient cannot be moved until clinical questions are answered. At a regional centre 350 kilometers away, a radiologist is brought online to assist. X-rays are transmitted over a secure network and viewed by a specialist who discusses options with a physician within minutes. The patient is stabilized successfully and evacuated by air ambulance.

A woman with a family history of breast cancer uses trusted online sources to find information on reducing the risk of developing breast cancer through a healthier diet. She keeps up to date on evidence based prevention and treatment breakthroughs using the Internet and maintains a record of useful online resources. She has completed a risk assessment profile on line and is aware of the signs and symptoms of cancer to watch for.

A man recently diagnosed with prostate cancer attends an appointment with an oncologist. The oncologist is able to review guidelines on prostate cancer and drug therapies with his patient and print out copies and a summary of the consultation for the man to take home. The following day the patient realized he had more questions and made an appointment with his family physician. The physician was able to call up the patient's medical history, test results and notes from the consultation at the cancer clinic and answer all his outstanding questions.

Using information from a data warehouse that has national, provincial and regional information, a health authority publishes its third annual performance and accountability report. The report has information on key indicators, data on targets and highlights those indicators where there are concerns about trends. The report also shows how the region compares in terms of high or low performance and contains guidance notes to help readers interpret the information. For the first time, the report shows an increase in babies born with fetal alcohol syndrome against the provincial and national trend. In response, the authority resolves to shift more resources to public health and addictions services and sets an aggressive target for the next year.

Guiding Principles

Ten key principles guide the pursuit of the vision. These principles define how health information in British Columbia will be gathered, managed and shared. Each of the goals and strategies outlined in this plan is consistent with these guiding principles:

PEOPLE CENTRED

Health information from caregivers, facilities, clinics, and hospitals will be integrated around individual British Columbians.

DRIVEN BY BRITISH COLUMBIANS' HEALTH NEEDS

Health information must support the front lines of health care delivery.

COLLABORATION

British Columbia's health authorities, health care practitioners and stakeholders will work together to deliver better information for health care.

PERSONAL PRIVACY

The privacy of the personal health information of British Columbians is paramount.

CONFIDENTIALITY

A person's health information will be shared only on a need to know basis and only for health purposes.

INFORMATION SECURITY

A person's health information will be held securely. Protection and accountability for personal health information will be assured.

ACCESS TO INFORMATION

The quality and reliability of information provided to different health care practitioners and stakeholders will continually improve, with appropriate access and availability.

COMMON STANDARDS

Common standards will allow information to be shared between different computer systems and different health care authorities.

COLLECT INFORMATION ONCE

Information will be collected once and used across the health system.

ACCOUNTABILITY

Health information will help us monitor the performance of the health care system and provide meaningful information for decision-makers.

Goals

Six equally important goals have been established for British Columbia's health information system. Each goal describes an end state, a picture of where we would like to be in the future. For each goal there is an assessment of the starting point or where we are today in health information. This is followed by a list of future strategies. These strategies will be developed in more detail in the tactical plans currently under development by the Health CIO Council. Information for health goals are clearly linked to New Era health goals.

GOAL ONE: SHARING OF CAREGIVER INFORMATION

People's health information will be shared electronically to support individual health-care decisions by their caregivers.

GOAL TWO: PUBLIC ACCESS TO HEALTH INFORMATION

Information that will help British Columbians improve wellness, learn about illnesses, find and use appropriate health services effectively and become informed of the best options and treatment practices will be easily accessible.

GOAL THREE: PROVISION OF AGGREGATE HEALTH INFORMATION

Aggregate health information will be provided for planning, decision-making, resource allocation and accountability purposes.

GOAL FOUR: LEVERAGING OF TECHNOLOGY

Technology will be leveraged effectively for the delivery of health care and administrative services.

GOAL FIVE: EFFICIENT USE OF PUBLIC RESOURCES

The efficient use of public resources will be promoted to minimize duplication of effort.

GOAL SIX: ENHANCED KNOWLEDGE MANAGEMENT

Information on best practices and recommended clinical guidelines will continually enhance health care knowledge.

Note: A word about privacy. Realizing all six goals without compromising British Columbians' privacy, confidentiality and security of health information requires particular attention. Privacy protection is crucial to the success of initiatives aimed at greater sharing of personal health information.

Legislation is one protection. B.C.'s *Freedom of Information and Protection of Privacy Act* forms the framework for the protection of personal privacy in the public sector. British Columbia plans to introduce private sector privacy legislation. Adoption of a security standard is another defense and is fundamental to the harmonization of security practices. Without such harmonization, trust will not exist between health care organizations to allow for the sharing of sensitive personal health information.

GOAL ONE: SHARING OF CAREGIVER INFORMATION

People's health information will be shared electronically to support individual health-care decisions by their caregivers.

Supports New Era Health Goal #1 High quality patient-centred care.

Patients receive appropriate, effective, quality care at the right time in the right setting and health services are planned, managed and delivered around the needs of the patient.

Seamless care for individuals hinges on easy access to health records and care plans. Information needs to be shared across the full spectrum of health care from family physicians to hospital staff and community care providers. It needs to be available on the desktop, in a doctor's office, in outpatient clinics, at the bedside and on the move. Information also needs to be centred around the individual.

Where are we today?

- Clinical and health management decisions are currently made using a combination of electronic and paper based records. Access to this information is slow and labour intensive.
- At times, a patient's verbal information is all the clinician has for making treatment decisions. This information can be inaccurate, selectively edited or hampered by language or cultural differences.
- There is little integration of clinical health information. People's health records are not readily retrievable using a province-wide identifier.

- Information exists in many formats and in stove pipes. There is a lack of information integration that can support the continuum of care.

- There is no comprehensive harmonization strategy for clinical/ administrative software to ensure long-term interoperability and information sharing.

- Physicians have readily adopted new technologies to provide enhanced clinical services. However, with the exception of billing and practice management, physicians have not widely adopted information technology in their office practices. Physicians cite the following reasons: cost, software does not integrate well with their workflow, issues of security and confidentiality and lack of electronic access to diagnostic results, pharmacy and hospital records.

- Some health authorities provide electronic access for physicians to diagnostic systems and much has been accomplished toward improving accessibility via public networks.

- Secure access to applications such as the Client and Health Registry using public networks has been achieved in the past year. Access to PharmaNet has been extended to Hospital Emergency Departments and a pilot for 100 physicians' offices has been completed. Further extension is under way. A Lab Test Standard for ordering and results reporting was developed and is currently being piloted by the Provincial Health Services Authority (PHSA). There is, however, no consistent or comprehensive province-wide strategy on electronic access to these systems.

- The restructuring of health authorities in B.C. and the design of specialized service networks like regional service centres drives consistency and interoperability between systems.

- B.C. is leading the development of a Provider Registry to uniquely identify health care providers. This will help the transmission of health information between participating organizations, a fundamental building block of an electronic health record.

Future Strategies:

Electronic Health Record

- The overarching strategy that underpins all future strategies for improving caregiver information is the Electronic Health Record (EHR).

> *What is an electronic health record? A longitudinal collection of the personal health information of a single individual, entered or accepted by health care providers, and stored electronically. It can contain information about a person's health, what services they have received, where the service was provided and who provided the service.*

- The Electronic Health Record is not one project but a series of building block projects. To provoke discussion and to actively engage care providers in the development and deployment of the EHR, a White Paper on EHR has been developed to summarize the current understanding of what an EHR could be in British Columbia. The strategies outlined below are just some examples of steps that could be taken to bring British Columbia closer to realizing the vision of an EHR.

Electronic access for caregivers to patient health information

- Increase access to diagnostic results, PharmaNet and other patient specific information and extend the capacity of PharmaNet to include order entry.

- Connect electronic laboratory, diagnostic images, pharmacy and health information together for a more complete picture of each person's health and integrate this information on a caregiver's desktop computer.

Align and standardize existing electronic patient records

- Support standardization initiatives at the regional, provincial and national level to make existing records more compatible and accessible.

- Establish a clearinghouse of information on installed clinical systems and initiatives and extend the use of facility-based clinical systems to the wider caregiver community.

Replace stove pipe legacy systems with an integrated electronic health information system

- Replace legacy systems (mental health, continuing care, public health information) with solutions that are consistent with the EHR strategy.

- Develop a new strategic approach for existing health registries.

Provide basic infrastructure

- Deploy a common, secure data transport and usage authentication infrastructure to provide greater access to the EHR.

- Develop a new strategic approach for existing health registries.

GOAL TWO: PUBLIC ACCESS TO HEALTH INFORMATION

Information that will help British Columbians improve wellness, learn about illnesses, find and use appropriate health services effectively and become informed of the best options and treatment practices will be easily accessible.

Supports New Era health Goal 2 :Improved health and wellness for British Columbians.

Support British Columbians in the pursuit of better health through protection, promotion and prevention activities.

Access to good information supports the ability of British Columbians to make informed decisions about their own health.

Where are we today?

- Health Canada and British Columbia have taken the lead in providing authenticated health information through their web sites.
- The British Columbia government recently launched the BC Health Guide online designed to provide British Columbians where they live with health information and advice 24 hours a day, seven days a week. British Columbia is the only province that has linked its triage (nurse) call centre to its online guide and to the BC HealthGuide, a self-care handbook provided to all households.
- There are significant amounts of health information missing that the public would like access to: for example, by subject, for certain populations and in different languages. Regional or provincial directories of health care services are also absent.

- A few organizations have posted information on their websites on the availability of health services but there is a need for collaboration on what information to provide, how to provide it, and methods of cost sharing of publishing services to leverage best practices and reduce overlap and duplication.

- The impact of disabilities, such as vision or hearing impairments, needs consideration in expanding access to health information.

Future strategies:

Coordinate current efforts

- Support, do not duplicate, the Canadian Health Network and the BC HealthGuide online consumer-oriented web sites.

- Post links on each health authority website to the Canadian Health Network and the BC HealthGuide online.

- Build on health authorities' existing web presence by offering greater opportunities for public involvement, understanding, and participation in shaping health policy.

Increase Access

- Consider a public awareness campaign to assist British Columbians in finding health information they can trust.

- Tailor health information online to different audiences and increase efforts to reach high-risk groups.

- Consider grouping information around events or life episodes like having a baby.

- Consider public access to aggregate, depersonalized, health care information.

- Integrate health information with other health services like selfcare/telecare services to support the management of chronic diseases such as diabetes, asthma and cardiovascular disease.

GOAL THREE: THE PROVISION OF AGGREGATE HEALTH INFORMATION

Aggregate health information will be provided for planning, decision-making, resource allocation and accountability purposes.

Supports New Era Health Goal #3 A sustainable, affordable public health system.

A planned, efficient, affordable and accountable public health system with governors, providers and patients taking responsibility for the provision and use of these services.

Making connections between different kinds of data will provide a more complete picture of health care and what works for British Columbians. The focus of this goal is to create shareable, reusable knowledge from the structures, processes, people, and information that make up the B.C. health system, so as to improve performance and outcomes. In addition, there is a renewed emphasis, under the "New Era of Health" strategy, on costing of medical procedures and services, and financial accountability.

Where are we today?

- British Columbia has a health data warehouse (HNData/BC) where depersonalized data from diverse sources can be integrated into a comprehensive picture of health and health care services.
- Information on some aspects of population health is readily available and is used to compare the health of different groups of British Columbians.
- Further work is needed to establish a health surveillance tracking and alert system to trace emerging diseases and threats to health.

- There is no province-wide, "health data administration function" including a data dictionary or data model. As a result, health information is generated, collected and stored without common definitions, format and procedures and yields data that is not consistent or shareable. There are a number of approved health information standards but there are no incentives to encourage use and monitor compliance.

- The quality and security of health information varies from organization to organization. More commitment to standards and quality is required to instill confidence.

- There is no province-wide inventory of registries for personal health information. Registries that exist do not have common architecture, data definitions or standards.

- Data needs to be integrated to support operational and management decision-making.

- Many administrative decisions are based on insufficient information because the data is either not available, paper-based, or collected at summary level for different purposes.

- There has been lack of stakeholder education regarding the importance of the adoption of consistent province-wide standards such as the personal health number.

Future Strategies:

Use standards to improve the quality and consistency of health information

- Encourage approval of interim Minimum Data Set standards for all health events based on British Columbia data conventions.
- Seek commitment to implementation of health information standards from health authorities and the Ministries of Health Planning and Health Services.
- Encourage the use of standards to enable the integration of information from discrete repositories.

Develop common strategies for sharing information

- Develop system-wide methodologies for the sharing of health systems planning information. Establish one Ministry portal where aggregate health authority data is collected and reported.
- Develop methodologies for ensuring the continued security and confidentiality of aggregate information.

Expand existing Health Data Warehouse

- Support the Health Data Warehouse and the inclusion of source data from Acute Care, Vital Statistics, Continuing Care, Mental Health, Public Health, Environmental Health, and financial information.
- Develop the Health Data warehouse to include health authority, provincial and national information resources.

GOAL FOUR: LEVERAGING OF TECHNOLOGY

Technology will be leveraged effectively to deliver health care and administrative services.

Supports New Era Health Goal #1: High quality patient-centred care.

Patients receive appropriate, effective quality care at the right time in the right setting and health services are planned, managed and delivered around the needs of the patient.

In delivering health care one of the largest challenges is British Columbia's immense geographic expanse. Most of the population is concentrated in the lower mainland and southern Vancouver Island, with about a quarter of us scattered over the rest of the province. This uneven distribution exacerbates the problem of delivering equitable health services.

Technology shrinks distance. Strategies like telehealth, which combine telecommunications and information technology, are very effective in transmitting health information instantaneously. British Columbia is the most connected province in Canada. More than six out of ten British Columbians have access to the Internet. This degree of connectivity means we are poised to take full advantage of the opportunities offered through information technology networks.

Where are we today?

- While many British Columbians enjoy good access to technology and high speed, broadband networks, there are still people and communities who cannot make effective use of information technology because of lack of network access, requisite skills and economic barriers.

- Technology exists to transmit medical images electronically; store diagnostic images digitally and review images remotely. This technology is in use but the supporting infrastructure is limited.

- Enhancements to computer networks are required to realize the full potential of telehealth and to support the streaming of medical images.
- Additional infrastructure such as video- and tele-conferencing facilities and training to develop to support these facilities are needed.
- Telehealth is being implemented in a piecemeal fashion. There is no province-wide strategy for remote, rural and aboriginal communities where this technology could make the biggest difference and no comprehensive approach to linking remote areas to major regional centres.
- Policy issues of privacy, security, cost, reimbursement and licensure require attention.
- Integration between telehealth and electronic health record initiatives is necessary so they complement each other.
- There is limited use of technology for professional development and training.

Future Strategies:

Expand telehealth

- Develop a provincial policy for wider implementation of telehealth initiatives.
- Evaluate telehealth pilot projects and explore new initiatives, like telehome care.
- Link telehealth to electronic health record initiatives.

Encourage multiple uses for high-speed networks

- Promote wider use of video conferencing for medical and caregiver consultation and continuing education.
- Develop a comprehensive Health Authority strategy to link physicians in remote or rural communities with tertiary resources in urban centres.

GOAL FIVE: EFFICIENT USE OF PUBLIC RESOURCES

The efficient use of public resources will be promoted to minimize duplication of effort.

Supports New Era Health Goal #3: A sustainable, affordable public health system

A planned, efficient, affordable and accountable public health system with governors, providers and patients taking responsibility for the provision and use of these services.

Trans Authority collaboration, regional collaboration with other Western Provinces and Territories and cooperation at the national level can all make the best use of limited resources and reduce overlap and duplication.

Where are we today?

- With the restructuring of health authorities, the CIOs are working to overcome the lack of consistency and interoperability between inherited systems. Until this situation improves trans Authority partnership arrangements will be difficult.

- There is collaboration at the provincial level through the Western Health Information Collaborative and at the national level through the Advisory Committee on Health Infostructure and Canada Health Infoway.

> *Canada Health Infoway Inc. (Infoway) is a non-profit corporation created at the national level and endowed with $500 million in federal funding. The corporation's primary focus is accelerating the development of electronic health systems for Canadians.*

> *WHIC stands for the Western Health Information Collaborative. It is a group of jurisdictions that have agreed to collaborate on health information infrastructure initiatives to reduce the overall cost to the public. The jurisdictions include Manitoba, Saskatchewan, Alberta, British Columbia, the Northwest Territories, Nunavut and the Yukon.*

- A number of network connections for health care providers are available. They include connections provided by the provincial government for PharmaNet, continuing care and mental health information systems.
- Health authorities purchase services directly from the private sector to operate their internal systems and communications.
- Groups such as the BC Cancer Agency provide services across the province.
- Network services are in place for the public school system and post-secondary education and research.
- The level of Internet service available varies between urban and remote areas. Many remote areas do not have high speed, broadband, reliable computer networks nor the expertise critical mass to develop them.
- There is no province-wide public sector network strategy.

Future strategies:

Support common solutions

- Develop strategies for common requirements and solutions across all six health authorities and implement cooperative tendering and purchasing arrangements.
- Create framework arrangements that can be used by more than one Authority, consider joint procurement for standard products, such as computer hardware, where they make sense and can save time and money.

- Improve the network coverage, speed, bandwidth and reliability to remote areas by collaborating with other provincial organizations.

- Use common project management tools and methodologies.

Expand Networks

- Consider the benefits of public/private partnerships and the role of SPAN/BC in expanding the delivery of e-health services throughout the province.

> *SPAN/BC is a secure computer network that currently connects over 4,000 locations throughout the province including almost 350 towns, 2,000 educational institutions, all provincial pharmacies, some hospitals and more than 1,500 government locations. With SPAN/BC, British Columbia is Canada's only province with a single, secure government network.*

- Increase use of the Internet and the Optical Advanced Regional Network (ORAN), a high-speed research and education network.

Support Pan Canadian and System Wide Alliances

- Align with Federal, Provincial and Territorial initiatives to collaboratively identify and develop best practices, standards, common infrastructure, and common opportunities. Focus on reusing successful solutions.

- Develop a Public Health Information strategy that aligns with the Federal/ Provincial/Territorial working group on Public Health Surveillance. Support the national standards setting body for public health.

- Develop system-wide repositories, directories and inventories for use by health system stakeholders.

- Develop and implement a system-wide architectural framework and ongoing architectural alignment process.

In this context architecture means the overall design of a computing system and the logical and physical interrelationships between its components. It is a framework and set of guidelines necessary to build new systems.

GOAL SIX: ENHANCED KNOWLEDGE MANAGEMENT

Supports all three New Era Health Goals: High quality patient-centred care, improved health and wellness for British Columbians and a sustainable, affordable public health system.

Information on best practices and recommended clinical guidelines will continually enhance health care knowledge.

Caregivers are living in a world of ever-increasing advances in therapies, greater emphasis on evidence-based health care, increasing expectations and better-informed and more empowered consumers. Managing this explosion of knowledge and delivering that knowledge in ways that support better health care is critical. Caregivers need to have timely, easily accessible knowledge at their fingertips. The ongoing promotion of a learning environment and the creation of a library of best practices are to be encouraged.

Where are we today?

- The BC Medical Services Plan, in cooperation with the BC Medical Association, has developed evidence-based clinical guidelines and protocols for B.C. physicians.
- PHSA develops, defines and maintains standards and guidelines for cancer care and treatment.
- Authoritative clinical guidelines and care plans are available for many illnesses and conditions, but they are not available on demand (online) throughout the province.
- Clinical support and administrative best practices are not widely published or accessible and are not integrated with professional practice.

- Many caregivers lack the skills and infrastructure necessary to access online resources.

- Skilled employees who can implement knowledge management initiatives, educate users, and support installed systems are difficult to attract and retain.

Future Strategies:

Promote Best Practices

- Explore the wider use of tools such as Internet and extranet to support the sharing of knowledge assets and information on best practices and electronic links to journals or professional discussion groups.

> *In the UK the National Electronic Library for Health (NeLH) is being established as an authoritative source of current health care knowledge to improve clinical practice and enable the most appropriate treatment to be provided based on accredited clinical evidence. NeLH will complement existing library and information services and offer an increasing range of electronic resources and skills to support their use.*

- Make protocols and care pathways available to patients and caregivers at the point of care and ensure greater access to the latest knowledge and evidence-based clinical guidelines for improved decision making.

- Search authoritative online sources of health care knowledge, including existing library and information services for best practices.

Encourage Professional Development

- Develop a knowledge and skills inventory of existing, needed and emerging requirements.
- Enhance information management education and professional development by working closely with academic institutions.
- Investigate baseline architecture training requirements for health authority staff.
- Promote education, mentoring and strategic alliances among health authorities.

Progress Reporting

This plan provides strategic information management and technology leadership for the health sector and, in particular, for the six health authorities and the Ministries of Health Planning and Health Services. The plan establishes a jointly agreed framework for collaboration and information sharing. While each Authority and/or Ministry will have specific clinical and business issues, their solutions should follow the guiding principles, goals and strategies noted in this plan.

The Ministries and each health authority will, at the end of each fiscal year, provide to the Executive Committee of the health authority and the Health Ministries, through the Health CIO Council, a report card of the initiatives they have undertaken and the goal(s) they support. The report card will also provide feedback to the Health CIO Council regarding suggestions for improvement and future areas of focus.

Health CIO Council staff will develop a synopsis of the report cards. It will be available to all health systems stakeholders. The Health CIO Council also undertakes each year to update the plan and to distribute it to health system stakeholders.

Appendices

APPENDIX A

RESPONSIBILITY TABLE

Roles and Responsibilities					
The Plan:	**Health Authority & Health Ministries Executive / CIO Council**	**Ministries of Health Planning and Health Services**	**Health Authorities**	**Key Providers: Physicians Pharmacists Nurses**	**CHI Inc, Health Canada**
Sponsor of the plan	X				
Partners in the plan	X	X	X	X	X
Management of the plan	X	X	X		
Development and Maintenance of the plan	X	X	X		
Consultation regarding the plan	X	X	X	X	X
Implementation of the plan	X	X	X	X	X
Funding for the plan provided by		X	X		X

APPENDIX B

HEALTH SYSTEM GOALS

From the Advisory Committee on Health Info-Structure - National Health Technical Infostructure Blueprint:

1. Health information for the public
2. Electronic Health Record (EHR)
3. Integrated Provider Solution
4. Support adoption, development, implementation, and governance of National Standards
5. Secure communications tools.
6. Extend basic systems infrastructures to rural communities
7. Accelerate feeder system development for core EHR dataset elements
8. Foster and coordinate EHR implementations where infrastructure is in place, and organizational leadership and commitment are in place.

British Columbia's New Era Health Goals

1. HIGH QUALITY PATIENT-CENTRED CARE

   Patients receive appropriate, effective quality care at the right time in the right setting and health services are planned, managed and delivered around the needs of the patient.

2. IMPROVED HEALTH AND WELLNESS FOR BRITISH COLUMBIANS

   Support British Columbians in the pursuit of better health through protection, promotion and prevention activities.

3. A SUSTAINABLE, AFFORDABLE PUBLIC HEALTH SYSTEM

   A planned, efficient, affordable and accountable public health system with governors, providers and patients taking responsibility for the provision and use of these services.

APPENDIX C

SUPPORTING DOCUMENTS

The Canada Health Infoway--entering a new era in healthcare
Prepared for Andrew J. Siman, Director General
Office of Health and the Information Highway Health Canada
Presented by Michel Léger, Director Secretariat to the Advisory Council on Health Infostructure, Office of Health and the Information Highway, Health Canada
February 23, 1999

Service Plan of the Ministry of Health Planning

Service Plan of the Ministry of Health Services

Northern Health Authority Redesign and Budget Management Plan

Interior Health Authority Health Services Redesign Plan

Vancouver Coastal Health Authority Strategies for a Sustainable Health System
Health System Redesign Plan

Fraser Health Authority Clinical Services Directional Plan

Vancouver Island Health Authority Health Services Redesign Plan

Provincial Health Services Authority Health Services Design and Budget Plan

Information Use by the Ministry of Health in Resource Allocation Decisions for the Regional Health Care System, Office of the Auditor General of British Columbia

Premier's Technology Council First Quarterly Report

Premier's Technology Council Second Quarterly Report

Advisory Committee on Health Infostructure – Tactical Plan for a pan-Canadian Health Infostructure – 2001 Update.

Glossary

Term	Explanation
ACHI	Advisory Committee on Health Infostructure is a federal/provincial/territorial mechanism reporting to the Conference of Deputy Ministers. Its mandate is to develop national strategies aimed at enhancing the utility and use of information, information and communications technologies in the health sector.
Architecture	1. In reference to computers, software or networks, the overall design of a computing system and the logical and physical interrelationships between its components. The architecture specifies the hardware, software, access methods and protocols used throughout the system. 2. A framework and set of guidelines to build new systems. IT architecture is a series of principles, guidelines or rules used by an enterprise to direct the process of acquiring, building, modifying and interfacing IT resources throughout the enterprise. These resources can include equipment, software, communications, development methodologies, modeling tools and organizational structures.
BC HealthGuide Online	A consumer health information web site, which provides access to the Healthwise Knowledgebase. This includes the entrance web page where consumers are required to enter their PHN to establish that they are MSP beneficiaries. The knowledge base is provided by Healthwise Inc. and stored on a Ministry of Health Planning/Health Services' server.

CIO	Chief Information Officer – CIO (chief information officer) The person responsible for planning, choosing, buying and installing an organization's computer and information-processing operation. CIOs develop the information technology (IT) vision for the organization. They oversee the development of corporate standards, technology architecture, technology evaluation and transfer; sponsor the business technology planning process; manage client relations; align IT with the business; and develop IT financial management systems. They also oversee plans to reinvest in the IT infrastructure, as well as in business and technology professionals. They are responsible for leading the development of an IT governance framework that will define the working relationships and sharing of IT components among various IT groups within the organization.
Confidentiality	The obligations of one person to preserve the secrecy of another's personal information[1].
Health CIO Council	A Council composed of the Chief Information Officers of the six health authorities and the CIO of the Ministries of Health Planning and Health Services.
EHR	The electronic health record describes the concept of a longitudinal and virtual record of a patient's encounters with the health system, from conception to death.
Facility	A data standard where "Facility" is defined as a combination of physical, financial, and/or human resources that are used to provide or receive health related services
Health Authorities	The six health authorities (Vancouver Coastal, Interior, Fraser, North, Vancouver Island and the Provincial Health Services Authority) that are responsible for the health services provided within their respective areas.
Infostructure	Infostructure – a multitude of information system components being developed at local, regional, provincial/territorial, national and even international levels. In order for information to be shared between these systems and to ensure that the data are reliable and comparable no matter when or where they are collected, consistent data and technical standards are required.

[1] (Source: Canada Health Infoway)

IM	Information Management - the discipline that analyzes information as an organizational resource. It covers the definitions, uses, value and distribution of all data and information within an organization whether processed by computer or not. It evaluates the kinds of data/ information an organization requires in order to function and progress effectively.[2] or A method of using technology to collect, process and condense information with a goal of efficient management.[3]
IT	Information Technology - the common term for the entire spectrum of technologies for information processing, including software, hardware, communications technologies and related services.
Privacy	The right of individuals to determine when, how, and to what extent they share information about themselves with others.[4]
PHIS	The Public Health Information System is a computer system, developed by the Ministry, maintained and utilized by the BC Centre for Disease Control containing personal health information necessary for the surveillance of public health.
PHN	Personal Health Number is the unique identifier for persons that is used by the British Columbia health system.
Premier's Technology Council	The Premier's Technology Council (PTC) is composed of leading members of the B.C technology community and academia. The PTC's mandate is to provide advice to the Premier on all technology-related issues facing British Columbia and its citizens.
Provider Registry	The Provider Registry is a standards-based repository of core provider data that is supplied by regulatory or recognized health care organizations and made available to authorized consumers to facilitate the authorized exchange of health information. The provider registry is currently under development.

[2] TechWeb: The Business Technology Network
[3] Gartner glossary
[4] (Source: Canada Health Infoway)

Security: Information Technology	The procedures and systems used to restrict access and maintain the integrity of that information.[5]
Telehealth	The use of communications and information technology to deliver health services and transmit health information over both long and short distances.

[5] (Source: Canada Health Infoway)